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Current Trends

Characteristics and Risk Behaviors of Homeless Black Men Seeking Services from the Community Homeless Assistance Plan — Dade County, Florida, August 1991

The number of homeless persons in the United States has been estimated to range from 600,000 (*1*) to 3 million (Dr. Barbara Cohen, The Urban Institute, personal communication, 1991), with higher concentrations of these persons in several large urban centers. Because of the circumstances of homelessness, neither the health status nor the public health needs of these persons are well defined. In Dade County (which includes incorporated Miami), Florida (1990 population: 1.9 million), the average daily number of persons who are homeless is estimated to be 6000; during a 1-year period, approximately 10,000 persons are homeless at some time (Dr. Andrew Cherry, Barry University, Miami, personal communication, 1991). This report presents findings from a survey conducted in August 1991 to assess the health risks of homeless persons in Dade County seeking services from the Community Homeless Assistance Plan (CHAP), a pilot case-management project that places homeless persons into housing, jobs, and appropriate social services.

During the 2-week intake period for the CHAP pilot program in August 1991, a University of Miami research team conducted face-to-face interviews at the CHAP site (three mobile office trailers located within an encampment of homeless persons beneath the Interstate 395 bridges in downtown Miami). For sampling stability and homogeneity, interviewees were selected from among black male clients, the modal subpopulation served by CHAP. Prospective interviewees were approached individually by a researcher, who briefly described the health assessrnent and invited participation. The investigator read an informed consent statement emphasizing that the survey was anonymous; that CHAP services were not contingent upon participation in the survey; and that survey information would facilitate the development of outreach/intervention programs to reduce health risks among persons on the street. Of approximately 130 men who were approached, 113 agreed to participate.

The survey used the Risk Behavior Assessment (RBA) questionnaire developed by the National Institute on Drug Abuse (*2*) for multisite national studies. RBA items

Homeless Black Men — Continued

include demographics; use of alcohol and other drugs during the 30 days preceding the interview or ever; history of injecting-drug use; sexual history for the 30 days preceding the interview; history of sexually transmitted diseases (STDs), including acquired immunodeficiency syndrome (AIDS) and human immunodeficiency virus (HIV)-seropositivity; and arrest records for the 30 days preceding the interview and ever. The RBA previously had been established to be reliable and valid for current drug users. For this assessment, four questions from the Adult Use of Tobacco Survey (*3*) were added to the RBA to assess prevalence of cigarette smoking.

Demographics

Of the 113 men who were interviewed, most (92 [81%]) were aged 25–44 years. Although 39 (35%) had less than a high school education, 31 (27%) had received some level of college or technical education (Table 1). Sixty-two (55%) were never married; 42 (37%) were separated or divorced.

Substance Use

Ninety-three (82%) men reported smoking cigarettes during the 30 days preceding the survey (Figure 1) (almost three times the 29% prevalence rate for black men aged 18–49 years in Florida in 1989 [CDC, unpublished data]); three men were classified as former smokers. Combining alcohol and all illicit drugs, 97 (86%) reported use of one or more of these substances during the 30 days preceding the interview. All persons in the sample had used alcohol during their lifetime, and 86 (76%) reported use during the 30 days preceding the interview. Crack cocaine was the most common street drug in current use and was reported to have been used by 64 (57%) men during the 30 days preceding the interview. Although 105 (93%) reported ever using marijuana, 34 (30%) had smoked marijuana in the 30 days preceding the interview. Similarly, ever using cocaine (other than crack) was reported by 80 (71%) men, and 17 (15%) reported use during the 30 days preceding the interview. Although 21 (19%) men reported ever using heroin and 18 (16%) reported ever using speedball (heroin and cocaine mixed), none of those interviewed reported use of either substance during the 30 days preceding the interview.

Three men reported injecting-drug use (cocaine) during the 30 days preceding the interview. Of the 76 men who reported use of illicit drugs during the 30 days

TABLE 1. Demographic characteristics of homeless black men* — Community Homeless Assistance Plan, Dade County, Florida, August 1991

Characteristic	No.	(%)	Characteristic	No.	(%)
Age			**Education**		
18–24	10	(9)	Less than high school diploma	39	(35)
25–34	47	(42)	High school diploma/ General Educational Development Certificate	43	(38)
35–44	45	(40)	Some college/ Technical school	26	(23)
≥45	11	(10)	College degree	5	(4)
Marital status					
Never married	62	(55)			
Married	3	(3)			
Common-law spouse	4	(4)			
Separated	27	(24)			
Divorced	15	(13)			
Other	2	(2)			

*Sample size = 113.

Homeless Black Men — Continued

preceding the interview, 29 (38%) reported histories of residential drug treatment; for these men, the cumulative lifetime duration of treatment averaged 14.8 weeks.

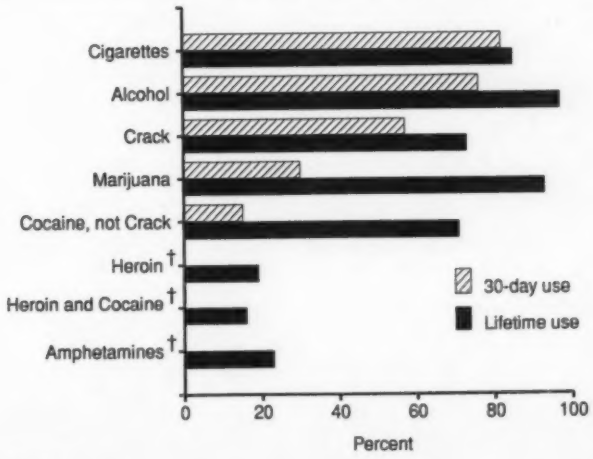
Sexual Activity

Of 110 men who responded to questions about sexual activity during the 30 days preceding the interview, 33 (30%) men reported no sex partners, 34 (31%) reported sex with one partner, and 43 (39%) reported sex with two or more partners. Among 78 men who reported sexual activity during the 30 days preceding the interview, 13 (17%) reported having sex on one occasion, 38 (49%) on two to five occasions, and 27 (35%) on six or more occasions. Of these 78 sexually active men, 69 (88%) reported sex with women only, eight (10%) reported sex with men only, and one (1%) reported sex with both men and women. Nine men indicated that at least one sex partner during the 30 days preceding the interview was an injecting-drug user. More than half of the sexually active respondents (40/76 [53%]) reported use of alcohol before or during sex on one or more occasions; similarly, more than half (40/75 [53%]) reported use of crack cocaine before or during sex.

During the 30 days preceding the interview, almost half (38/78 [49%]) of the sexually active men indicated that they had used a condom on one or more occasions. Five (6%) men reported giving sex in exchange for drugs, 29 (37%) reported giving drugs in exchange for sex (27 of 29 gave crack), 11 (14%) reported exchanging sex for money, and 18 (23%) reported giving money for sex.

Of 109 men who responded to questions regarding STDs, 60 (55%) reported a previous diagnosis of gonorrhea, and 39 (36%) reported a previous diagnosis of syphilis; 11 (11%) of 96 who had received HIV test results indicated that they had been informed that they were HIV-antibody positive.

FIGURE 1. Percentage of drug use among homeless black men* — Community Homeless Assistance Plan, Dade County, Florida, August 1991



*Sample size = 113.
†No use was reported during the 30 days preceding the interview.

Homeless Black Men — Continued

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Editorial Note: The CHAP program provided a unique opportunity to describe the demographic and health characteristics of a sample of homeless persons who had self-selected to seek assistance services. Because of inherent constraints on sampling, the number of homeless persons in Dade County and other locations cannot be accurately estimated. Nonetheless, the findings from this health assessment indicate a high prevalence of substance use and a substantial prevalence of high-risk sexual behaviors among homeless black men who are seeking shelter and job-placement services in Dade County.

The findings from this survey suggest at least three levels for approaching the health risks and public health needs of homeless persons in Dade County and elsewhere. First, street-based interventions (e.g., community outreach counseling concerning sexual and drug-use behaviors and referral networks for health-care and service agencies) may be developed to minimize the health consequences of substance use and unprotected sexual activity; such services can be provided by community-based clinics, organizations that serve homeless persons, and university-based public health activities. The University of Miami researchers have conducted extensive outreach efforts for drug abuse and AIDS prevention among high-risk groups, including the homeless (*4*).

Second, case-management programs such as CHAP enable placement of homeless persons in housing and jobs and provide follow-up during the transition from street to independent living. In addition, CHAP staff provide several services, including initial placement in shelters, job referral, chemical dependency assessment and referral to treatment, referral to medical and social services in the community, and ultimately, long-term housing placement.

Finally, a multistrategy approach addressing the public health needs of the homeless will require an active, ongoing partnership between public, voluntary, private, and academic organizations. This approach may include establishing permanent facilities to provide intake, assessment, referral, and case-management services and targeting primary prevention education efforts concerning drug use and sexual risks among homeless persons.

References

1. Burt M, Cohen B. America's homeless. Washington, DC: The Urban Institute Press, 1989.
2. National Institute on Drug Abuse. Training manual for administering and coding the Risk Behavior Assessment (RBA) questionnaire. Rockville, Maryland: Community Research Branch, National Institute on Drug Abuse, Alcohol, Drug Abuse, and Mental Health Administration, 1991.
3. CDC. Tobacco use in 1986: methods and tabulations from Adult Use of Tobacco Survey. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, 1990; DHHS publication no. (OM)90-2004.
4. McCoy CB, Khoury EL. Drug use and the risk of AIDS. American Behavioral Scientist 1990;33:419–31.

Epidemiologic Notes and Reports

Tuberculosis Among Residents of Shelters for the Homeless — Ohio, 1990

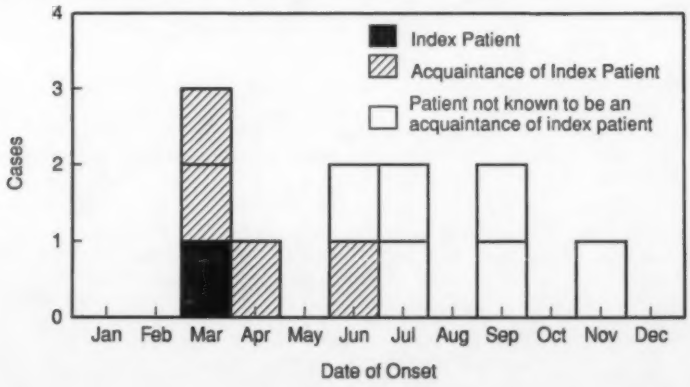
During 1990, 17 cases of clinically active pulmonary tuberculosis (TB) occurred among residents of homeless shelters in three Ohio cities (Cincinnati, Columbus, and Toledo). This report summarizes the results of investigations of these cases by the Ohio Department of Health.

Cincinnati

During March 1990, health officials in Cincinnati were notified of three TB cases among residents of a 200-bed shelter for homeless adults. One of these (index case) occurred in a man with a history of alcohol abuse who died from respiratory failure and at autopsy was found to have cavitary pulmonary TB. From April through November 1990, eight additional cases of pulmonary TB were identified among residents of the shelter (Figure 1). Of the 11 total case-patients, seven were sputum–smear-positive, indicating potential infectiousness, and 10 were culture-positive. Four case-patients were known acquaintances of the index patient (Figure 1).

Mycobacterial isolates from the 10 culture-positive patients and isolates obtained from 10 persons not associated with the outbreak (controls) were sent to CDC for typing by restriction fragment length polymorphism (RFLP) (*1*). The control isolates were obtained from a convenience sample of 10 persons with apparently unrelated TB cases reported during 1990 from Cincinnati and nearby counties in Ohio and Kentucky. Nine of the 10 outbreak-related isolates, including the isolate from the index patient, and two control isolates had identical RFLP banding patterns. The two control isolates that shared an RFLP banding pattern with outbreak isolates were obtained from patients who, like the index patient, resided in Cincinnati and had a history of alcohol abuse.

FIGURE 1. Pulmonary tuberculosis cases among residents of a 200-bed shelter for homeless adults, by month of diagnosis — Cincinnati, Ohio, 1990



Tuberculosis — Continued

Columbus

During March 1990, staff from a local hospital emergency room notified the public health department in Columbus of a case of sputum–smear-positive pulmonary TB in a resident (index patient) of a homeless shelter; TB had been diagnosed during January, but the patient had been lost to follow-up for 2 months. During those 2 months, he had resided in a shelter in Toledo, 135 miles north of Columbus. The public health department notified the Columbus shelter director and initiated a voluntary, citywide TB screening and case-finding program for residents and staff of men's shelters and soup kitchens; 95% of these facilities participated.

On average, 768 persons daily occupied the participating men's shelters and soup kitchens in Columbus. During April 24–May 24, 1990, the city health department administered Mantoux tuberculin skin tests (5 tuberculin units [TU] of purified protein derivative [PPD]) to 363 residents and 123 (69%) of 178 staff. Of the 486 skin tests administered, 403 (83%) were read (291 residents and 112 staff). Among 81 skin-tested residents of the shelter in which the index patient resided, 32 (40%) had tuberculin skin test reactions ≥10 mm induration, compared with 47 (22%) of 210 skin-tested residents of other Columbus men's shelters and soup kitchens (relative risk = 1.8, 95% confidence interval = 1.2–2.5). Among the 27 staff members at the shelter in which the index patient resided, seven (26%) had tuberculin skin test reactions ≥10 mm induration, compared with nine (11%) of 85 staff members in other men's shelters and soup kitchens ($p = 0.06$, Fisher's exact test, 2-tailed).

Following the screening program in Columbus, vouchers for chest radiographs were issued to 95 persons with tuberculin reactions ≥10 mm induration (previous tuberculin status not reported) and 30 persons with previously known tuberculin reactions. Of these 125 persons, 111 (89%) had radiographs and 40 (32%) reported to the TB clinic for evaluation and treatment after the radiograph. Isoniazid (INH) prophylaxis was recommended for 37 of the 40 persons; 28 (76%) of the 37 did not return after their initial clinic visit, eight (22%) completed prophylaxis, and one (3%) stopped treatment because of adverse reactions. One resident who had a tuberculin reaction ≥10 mm induration and who refused a chest radiograph had culture-negative pleural TB diagnosed in June 1990.

From May through December 1990, five additional cases of clinically active pulmonary TB were identified among residents of men's shelters and soup kitchens in Columbus. Results of investigations of these cases are pending.

Toledo

In Toledo, voluntary screening for TB was initiated at the shelter that had been visited by the index patient from Columbus and was offered to persons who resided in the shelter within 10 weeks of the potential exposure. Of the 80 residents in the shelter, 20 (25%) were considered to be long-term (≥3 months) residents; 18 of these were evaluated. Two of the 18 had histories of tuberculous infection. Mantoux tuberculin skin tests (5 TU PPD) were administered to the remaining 16; of the 15 skin tests that were read, four (27%) patients had reactions ≥10 mm induration.

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Tuberculosis – Continued

Editorial Note: In this report, the large number of TB cases among residents of one 200-bed shelter in Cincinnati and the results of RFLP typing suggest that transmission of TB occurred in the shelter. RFLP is a recently developed laboratory tool for identifying genetic differences among *Mycobacterium tuberculosis* strains (*1*). This technique provides highly specific and reproducible identification of isolates and, with further refinements, should aid health departments in conducting epidemiologic investigations. The two control isolates that shared a banding pattern with the outbreak strains may reflect the finite number of regional strains or represent an epidemiologic link to patients affected in the outbreak. Other possible, but less likely, causes for the matching patterns include misidentification or contamination during collection or processing of specimens or isolates.

At least four factors contribute to an increased risk for TB among homeless persons. First, in different locations, the prevalence of clinically active TB has ranged from 2% to 7%, and the prevalence of latent infection has ranged from 12% to 50% (*2–5*). Second, characteristics of shelter environments (e.g., crowding and insufficient ventilation) facilitate transmission of TB (*6*). Third, the increased prevalence of some conditions (e.g., human immunodeficiency virus [HIV] infection, poor nutrition, alcoholism, illicit drug use, and psychological stress) among homeless persons may increase their risk for active TB if infected (*4,5,7–10*). Fourth, because shelter residents are transient, they often do not complete TB therapy, and the likelihood of relapse, drug resistance, and further transmission of TB among shelter residents is increased (*3,4,8,10*).

In Columbus, the prevalence of TB infection was higher among residents and staff of the shelter where the index patient resided. Despite efforts to screen and treat shelter residents in Columbus, only 22% of persons for whom INH preventive therapy was prescribed were known to have completed the recommended course. Some shelters have reported improved adherence to TB therapy among shelter residents through convenient, on-site medical examinations and treatment; directly observed therapy; and behavioral incentives (e.g., transportation and more comfortable sleeping areas for residents receiving TB treatment) (*5–7*).

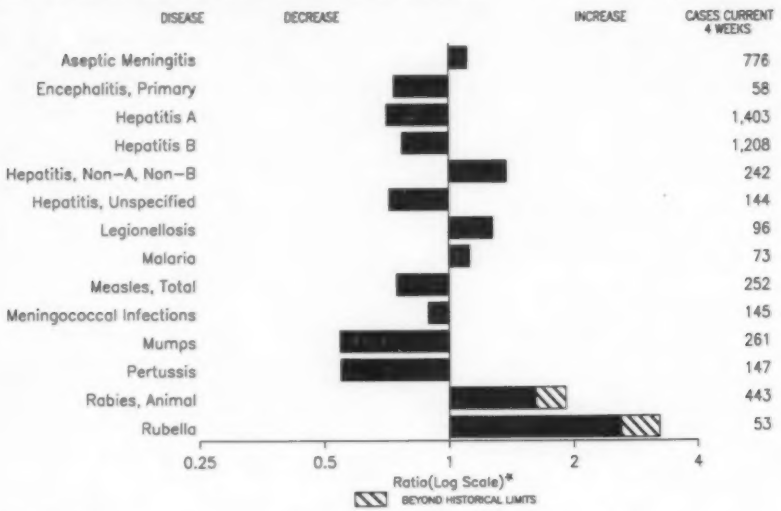
Because of the difficulties in controlling the airborne spread of TB among shelter residents, as well as the increased risk for TB among homeless persons, especially that associated with HIV infection, the following measures are needed to decrease this risk: 1) early identification and effective treatment of active TB cases among shelter residents; 2) hospitalization in an acute-care or long-term–care facility or appropriate housing for such patients with active TB until they are no longer infectious or, ideally, until completion of therapy; 3) directly supervised therapy until completion of treatment for active TB; 4) directly supervised preventive therapy for shelter residents at high risk for TB; 5) awareness of HIV-infection status for appropriate selection and monitoring of TB treatment and preventive therapy (*11*); 6) appropriate ventilation and other environmental control measures in shelters; 7) routine surveillance of shelter staff for tuberculous infection; and 8) close cooperation between programs and staff operating homeless shelters and the health department for ongoing control of TB among homeless populations.

References

1. Cave MD, Eisenach KD, McDermott PF, et al. Conservation of sequence in the *Mycobacterium tuberculosis* complex and its utilization in DNA fingerprinting. Mol Cell Probes 1991;5:73–80.

(Continued on page 877)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending December 14, 1991, with historical data — United States



*Ratio of current 4-week total to the mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of specified notifiable diseases, United States, cumulative, week ending December 14, 1991 (50th Week)

	Cum. 1991		Cum. 1991
AIDS	41,456	Measles: imported	211
Anthrax	-	indigenous	9,211
Botulism: Foodborne	22	Plague	10
Infant	69	Poliomyelitis, Paralytic*	-
Other	4	Psittacosis	82
Brucellosis	80	Rabies, human	3
Cholera	24	Syphilis, primary & secondary	39,696
Congenital rubella syndrome	35	Syphilis, congenital, age < 1 year	1,693
Diphtheria	2	Tetanus	46
Encephalitis, post-infectious	76	Toxic shock syndrome	265
Gonorrhea	576,591	Trichinosis	61
Haemophilus influenzae (invasive disease)	2,511	Tuberculosis	22,335
Hansen Disease	137	Tularemia	187
Leptospirosis	57	Typhoid fever	448
Lyme Disease	8,764	Typhus fever, tickborne (RMSF)	623

*Four suspected cases of poliomyelitis have been reported in 1991; none of the 8 suspected cases in 1990 have been confirmed to date. Five of the 13 suspected cases in 1989 were confirmed and all were vaccine associated.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending December 14, 1991, and December 15, 1990 (50th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991
UNITED STATES	41,456	13,800	900	76	576,591	650,617	22,180	16,174	2,968	1,178	1,185	8,764
NEW ENGLAND	1,717	1,550	30	3	13,739	17,509	554	765	64	36	86	1,688
Maine	61	154	3	-	154	204	20	29	4	-	6	-
N.H.	45	170	5	2	183	288	30	30	8	-	9	35
Vt.	20	229	5	-	51	49	23	15	7	1	4	7
Mass.	972	521	14	1	5,857	7,392	278	537	31	32	62	285
R.I.	90	469	1	-	1,156	1,208	103	28	12	3	5	172
Conn.	529	7	2	-	6,338	8,368	100	146	2	-	-	1,189
MID. ATLANTIC	11,092	2,642	68	11	66,965	89,694	2,391	1,670	354	21	328	5,187
Upstate N.Y.	1,475	1,317	35	7	12,737	14,220	860	581	212	11	119	3,340
N.Y. City	6,216	374	1	-	24,880	34,836	863	283	9	-	59	-
N.J.	2,208	-	-	-	11,145	14,225	277	363	88	-	32	862
Pa.	1,193	951	32	4	18,203	26,413	391	443	45	10	118	995
E.N. CENTRAL	3,178	2,645	260	7	111,065	122,909	2,922	1,827	443	85	246	316
Ohio	568	975	87	2	33,610	36,074	356	383	165	20	128	169
Ind.	313	197	23	1	11,394	10,909	404	206	1	1	18	12
Ill.	1,550	506	86	4	34,070	38,030	1,244	287	76	7	22	25
Mich.	542	845	58	-	25,699	29,387	283	594	137	57	47	110
Wis.	205	122	6	-	6,292	8,509	635	357	64	-	31	-
W.N. CENTRAL	1,149	686	64	8	28,604	32,925	2,184	709	337	24	60	324
Minn.	229	136	38	-	3,063	4,023	409	86	12	2	13	84
Iowa	95	167	-	4	1,865	2,188	47	42	10	4	12	22
Mo.	655	258	14	4	17,094	19,745	596	477	303	12	17	193
N. Dak.	4	12	2	-	75	127	53	4	5	2	1	2
S. Dak.	3	12	4	-	343	306	792	7	1	-	3	1
Nebr.	63	30	2	-	1,757	1,782	203	39	1	-	10	-
Kans.	100	71	4	-	4,407	4,754	84	54	5	4	4	22
S. ATLANTIC	9,853	2,524	176	33	171,905	185,402	1,750	3,367	379	259	192	730
Del.	78	72	5	-	2,779	3,124	11	49	5	2	2	69
Md.	880	323	22	1	19,270	23,006	266	384	48	15	37	269
D.C.	706	78	2	-	8,751	13,005	74	154	1	1	10	4
Va.	701	448	44	3	17,547	17,919	185	215	31	134	16	202
W. Va.	53	57	34	-	1,248	1,309	22	62	4	21	4	44
N.C.	543	329	34	-	32,456	30,029	160	525	110	41	27	79
S.C.	335	40	-	-	13,957	13,984	39	659	16	4	37	10
Ga.	1,394	325	11	1	41,872	39,890	227	535	89	1	22	31
Fla.	5,163	852	24	28	34,025	43,136	766	784	75	40	37	22
E.S. CENTRAL	1,005	819	47	-	55,834	56,326	264	1,323	408	3	52	103
Ky.	160	198	15	-	5,751	6,104	66	172	7	2	18	42
Tenn.	333	252	21	-	18,849	17,674	144	981	373	-	17	45
Ala.	325	292	11	-	17,726	18,697	44	158	23	1	16	16
Miss.	187	77	-	-	13,508	13,851	10	12	5	-	1	-
W.S. CENTRAL	4,093	1,331	118	5	65,269	70,089	2,834	2,192	116	229	50	81
Ark.	183	61	33	-	7,676	8,723	240	128	4	8	7	29
La.	700	136	17	-	14,933	12,647	132	351	7	10	9	6
Okla.	192	5	10	3	6,563	6,133	276	205	44	16	21	31
Tex.	3,018	1,129	58	2	36,097	42,586	2,186	1,508	61	195	13	15
MOUNTAIN	1,212	266	21	3	11,479	13,597	3,415	947	203	138	80	20
Mont.	29	18	1	-	97	214	79	75	5	5	5	-
Idaho	27	-	-	-	158	141	96	70	4	2	5	2
Wyo.	17	-	-	-	94	161	126	23	5	-	-	9
Colo.	403	106	8	1	3,154	4,064	640	137	101	27	14	-
N. Mex.	103	20	1	-	964	1,224	791	215	20	29	3	-
Ariz.	247	70	11	2	4,318	5,039	1,095	173	20	60	33	1
Utah	122	17	-	-	322	375	282	71	18	14	9	2
Nev.	264	35	-	-	2,372	2,379	306	183	30	1	11	6
PACIFIC	8,157	1,337	116	6	51,731	62,166	5,866	3,354	664	383	91	315
Wash.	513	-	10	1	4,439	5,383	524	420	141	20	11	3
Oreg.	250	-	-	-	1,968	2,418	402	289	118	10	3	-
Calif.	7,185	1,239	104	5	43,802	52,600	4,802	2,554	388	352	75	312
Alaska	19	48	2	-	854	1,142	90	38	13	1	-	-
Hawaii	190	50	-	-	668	623	48	53	4	-	2	-
Guam	3	1	-	2	27	286	-	-	-	-	-	-
P.R.	1,636	243	2	4	509	715	139	504	144	44	-	-
V.I.	21	-	-	-	342	442	2	10	-	-	-	-
Amer. Samoa	-	-	-	41	38	73	4	-	-	-	-	-
C.N.M.I.	-	-	-	135	75	189	4	7	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending December 14, 1991, and December 15, 1990 (50th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1991	1991	Cum. 1991	1991	Cum. 1991	Cum. 1990	Cum. 1991	1991	Cum. 1991	1991	Cum. 1991	Cum. 1990	1991	Cum. 1991	Cum. 1990
UNITED STATES	1,137	55	9,211	3	211	26,304	1,921	65	3,891	31	2,476	4,108	9	1,353	1,085
NEW ENGLAND	70	-	65	-	17	298	148	-	28	-	272	417	-	4	8
Maine	1	-	7	-	-	30	13	-	-	-	52	22	-	-	1
N.H.	2	-	-	-	-	9	14	-	5	-	22	66	-	1	1
Vt.	4	-	5	-	-	1	16	-	4	-	5	8	-	-	-
Mass.	32	-	29	-	11	32	80	-	3	-	170	283	-	2	2
R.I.	10	-	3	-	1	30	3	-	4	-	-	10	-	-	1
Conn.	21	-	21	-	5	196	22	-	12	-	23	28	-	1	3
MID. ATLANTIC	222	25	4,827	-	7	1,879	211	1	280	12	254	541	2	575	11
Upstate N.Y.	52	-	359	-	4	318	106	1	100	-	154	321	-	539	10
N.Y. City	99	25	1,900	-	-	684	21	-	-	12	19	-	2	2	-
N.J.	55	-	1,026	-	2	451	42	-	65	-	12	36	-	1	-
Pa.	16	-	1,542	-	1	426	42	-	115	-	69	184	-	33	1
E.N. CENTRAL	88	-	75	-	20	3,541	327	11	399	6	375	1,052	-	319	164
Ohio	20	-	4	-	7	539	97	7	110	6	111	239	-	283	131
Ind.	3	-	1	-	5	418	48	-	8	-	70	149	-	2	-
Ill.	33	-	25	-	1	1,358	87	-	136	-	61	355	-	8	21
Mich.	29	-	43	-	-	473	71	4	116	-	37	86	-	25	9
Wis.	3	-	2	-	7	753	24	-	29	-	96	223	-	1	3
W.N. CENTRAL	39	-	38	-	17	872	115	-	119	1	207	213	-	19	43
Minn.	11	-	11	-	16	381	26	-	21	1	81	44	-	6	34
Iowa	7	-	17	-	-	26	14	-	22	-	24	18	-	6	4
Mo.	9	-	-	-	1	102	38	-	37	-	73	109	-	5	3
N. Dak.	2	-	-	-	-	-	1	-	2	-	4	5	-	1	1
S. Dak.	2	-	-	-	-	23	3	-	2	-	5	1	-	-	-
Nebr.	1	-	1	-	-	106	10	-	8	-	9	11	-	-	1
Kans.	7	-	9	-	-	234	23	-	27	-	11	25	-	1	-
S. ATLANTIC	226	26	597	-	23	1,315	341	32	1,495	-	247	319	-	10	21
Del.	3	-	21	-	-	11	4	-	7	-	-	9	-	-	-
Md.	61	-	173	-	3	213	34	5	249	-	60	68	-	1	2
D.C.	14	-	-	-	-	23	15	-	24	-	1	15	-	1	1
Va.	51	-	25	-	5	86	38	-	61	-	24	25	-	-	1
W. Va.	3	-	-	-	-	6	13	-	27	-	9	31	-	-	-
N.C.	14	-	40	-	4	39	56	-	250	-	39	78	-	2	1
S.C.	10	-	13	-	-	4	30	-	380	-	14	5	-	-	-
Ga.	21	-	10	-	5	358	73	-	72	-	49	41	-	-	1
Fla.	49	26	315	-	6	575	78	27	425	-	51	49	-	6	15
E.S. CENTRAL	20	-	29	-	4	199	127	1	229	-	98	159	-	100	4
Ky.	2	-	23	-	1	43	47	-	-	-	-	-	-	-	1
Tenn.	11	-	5	-	2	104	40	1	195	-	40	85	-	100	3
Ala.	7	-	1	-	1	25	38	-	13	-	54	66	-	-	-
Miss.	-	-	-	-	-	27	2	-	21	-	4	8	-	-	-
W.S. CENTRAL	70	2	205	-	14	4,328	129	9	329	11	163	199	1	8	91
Ark.	10	-	-	-	5	48	20	-	44	-	14	22	-	1	3
La.	17	-	-	-	-	10	36	5	39	-	17	34	1	1	-
Okla.	8	-	-	-	-	174	13	-	16	-	49	63	-	1	1
Tex.	35	2	205	-	9	4,096	60	4	230	11	83	80	-	5	87
MOUNTAIN	46	-	1,260	3	25	976	74	6	309	-	335	331	-	37	112
Mont.	1	-	-	-	-	1	10	-	-	-	6	36	-	11	15
Idaho	3	-	450	-	2	26	8	2	12	-	28	57	-	-	49
Wyo.	-	-	1	-	2	15	2	-	5	-	3	-	-	-	-
Colo.	13	-	1	3†	11	138	16	-	134	-	133	123	-	2	4
N. Mex.	6	-	117	-	5	93	8	N	N	-	53	19	-	4	-
Ariz.	16	-	453	-	-	312	22	1	121	-	69	56	-	2	32
Utah	5	-	220	-	4	147	-	-	15	-	41	36	-	11	4
Nev.	2	-	18	-	1	244	8	3	21	-	2	4	-	7	8
PACIFIC	356	2	2,115	-	84	12,896	449	5	704	1	525	877	6	281	631
Wash.	26	-	46	-	15	328	66	2	169	1	133	216	-	8	-
Oreg.	12	-	52	-	41	212	58	N	N	-	67	111	1	5	75
Calif.	314	1	2,005	-	16	12,233	310	2	489	-	250	422	5	261	540
Alaska	-	-	2	-	3	80	10	-	17	-	13	15	-	1	-
Hawaii	4	1	10	-	9	43	5	1	29	-	62	113	-	6	16
Guam	-	U	-	U	-	1	-	U	-	U	-	1	U	-	-
P.R.	2	-	94	-	-	1,668	19	-	12	1	57	22	-	-	-
V.I.	2	U	-	U	2	24	-	U	10	U	-	-	U	-	-
Amer. Samoa	-	U	-	U	-	586	-	U	3	U	-	-	U	-	-
C.N.M.I.	1	U	-	U	-	66	-	U	-	U	-	4	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending December 14, 1991, and December 15, 1990 (50th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1990	Cum. 1991	Cum. 1991	Cum. 1991	Cum. 1991
UNITED STATES	39,698	47,076	265	22,335	22,515	187	448	623	6,331
NEW ENGLAND	993	1,594	15	615	595	5	33	9	177
Maine	3	7	4	33	18	-	1	-	-
N.H.	12	51	3	5	3	-	1	-	2
Vt.	2	2	-	10	10	-	-	-	-
Mass.	478	655	8	344	336	5	28	8	14
R.I.	50	24	-	69	70	-	-	-	-
Conn.	448	855	-	154	158	-	3	1	161
MID. ATLANTIC	6,648	9,204	41	5,213	5,308	2	103	25	2,245
Upstate N.Y.	179	877	19	325	365	1	19	14	917
N.Y. City	3,758	4,162	2	3,351	3,317	-	58	1	-
N.J.	1,200	1,464	-	874	901	1	18	6	963
Pa.	1,511	2,701	20	663	725	-	8	4	365
E.N. CENTRAL	4,837	3,524	49	2,206	2,163	9	41	43	176
Ohio	636	529	22	357	387	2	4	25	20
Ind.	174	107	-	230	228	1	-	10	29
Ill.	2,340	1,478	15	1,125	1,057	4	20	5	35
Mich.	1,124	986	12	395	413	2	12	3	33
Wis.	563	424	-	99	78	-	5	-	59
W.N. CENTRAL	895	512	41	502	590	54	6	38	823
Minn.	65	88	9	95	121	1	2	-	298
Iowa	65	73	7	57	69	-	-	1	150
Mo.	554	281	13	221	289	43	1	26	23
N. Dak.	-	1	-	8	18	-	-	-	101
S. Dak.	1	4	1	31	14	5	-	1	174
Nebr.	17	15	2	20	16	1	3	5	17
Kans.	193	50	9	70	63	4	-	5	60
S. ATLANTIC	11,550	14,906	25	4,197	4,145	4	71	285	1,466
Del.	172	187	1	33	34	-	-	-	178
Md.	961	1,155	1	394	340	-	11	26	559
D.C.	688	1,069	1	176	155	-	3	-	21
Va.	861	923	5	310	371	-	10	19	246
W. Va.	30	20	-	65	80	-	1	4	52
N.C.	1,906	1,692	11	558	572	1	4	156	23
S.C.	1,482	1,019	2	412	449	1	4	37	107
Ga.	2,785	3,769	1	813	696	1	5	40	250
Fla.	2,665	5,072	3	1,436	1,448	1	33	3	30
E.S. CENTRAL	4,334	4,346	11	1,571	1,654	19	3	102	149
Ky.	107	114	4	322	354	4	2	29	48
Tenn.	1,396	1,804	5	593	487	14	1	57	29
Ala.	1,600	1,329	2	370	477	1	-	16	72
Miss.	1,231	1,099	-	286	336	-	-	-	-
W.S. CENTRAL	7,339	8,115	14	2,663	2,663	56	29	111	595
Ark.	668	590	3	240	309	42	-	29	48
La.	2,691	2,504	-	263	276	-	5	-	7
Okla.	204	261	4	165	198	13	3	80	173
Tex.	3,776	4,760	7	1,995	1,880	1	21	2	367
MOUNTAIN	580	855	34	602	537	32	12	8	239
Mont.	6	-	1	10	22	9	-	6	41
Idaho	4	6	-	13	12	-	-	-	6
Wyo.	11	3	-	4	5	1	-	-	83
Colo.	82	53	6	68	49	10	2	2	25
N. Mex.	30	46	7	62	104	2	2	-	6
Ariz.	341	600	5	302	246	3	7	-	48
Utah	9	29	15	54	38	7	-	-	19
Nev.	97	118	-	89	61	-	1	-	11
PACIFIC	2,522	4,020	35	4,766	4,860	6	150	2	461
Wash.	166	369	5	286	292	2	10	1	1
Oreg.	84	128	-	115	130	2	6	1	5
Calif.	2,260	3,486	30	4,112	4,198	2	122	-	451
Alaska	4	18	-	57	63	-	-	-	3
Hawaii	8	19	-	196	177	-	12	-	1
Guam	1	2	-	8	40	-	-	-	-
P.R.	409	313	-	211	146	-	9	-	60
V.I.	93	43	-	3	4	-	-	-	-
Amer. Samoa	-	-	-	2	15	-	-	-	-
C.N.M.I.	5	5	-	18	57	-	-	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending December 14, 1991 (50th Week)

Reporting Area	All Causes, By Age (Years)						P&I†	Reporting Area	All Causes, By Age (Years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total		All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	856	596	147	70	16	27	72	S. ATLANTIC	1,126	713	235	114	24	38	60
Boston, Mass.	363	237	58	34	8	16	35	Atlanta, Ga.	179	99	32	39	2	7	4
Bridgeport, Conn.	62	46	9	7	-	-	5	Baltimore, Md.	250	154	58	24	4	9	16
Cambridge, Mass.	21	16	5	-	-	-	2	Charlotte, N.C.	102	71	24	5	1	1	6
Fall River, Mass.	29	19	8	2	-	-	1	Jacksonville, Fla.	125	85	21	10	4	5	6
Hartford, Conn.	71	46	12	8	4	1	1	Miami, Fla.	U	U	U	U	U	U	U
Lowell, Mass.	19	14	4	1	-	-	2	Norfolk, Va.	48	25	11	9	2	1	2
Lynn, Mass.	8	7	1	-	-	-	1	Richmond, Va.	82	45	23	8	3	3	11
New Bedford, Mass.	24	17	4	3	-	-	-	Savannah, Ga.	42	29	7	1	2	3	3
New Haven, Conn.	53	36	5	3	-	9	4	St. Petersburg, Fla.	98	77	10	6	1	4	-
Providence, R.I.	42	31	5	4	2	-	5	Tampa, Fla.	167	104	42	11	5	4	11
Somerville, Mass.	7	6	-	1	-	-	-	Washington, D.C.	U	U	U	U	U	U	U
Springfield, Mass.	60	44	10	4	1	1	5	Wilmington, Del.	33	24	7	1	-	1	1
Waterbury, Conn.	37	28	7	1	1	-	3								
Worcester, Mass.	60	49	9	2	-	-	8	E.S. CENTRAL	951	640	183	67	25	35	82
								Birmingham, Ala.	133	90	31	8	3	1	5
MID. ATLANTIC	3,014	1,932	598	353	69	62	147	Chattanooga, Tenn.	75	54	12	5	1	3	8
Albany, N.Y.	59	43	9	2	2	3	2	Knoxville, Tenn.	116	78	21	10	5	2	15
Allentown, Pa.	17	11	4	2	-	-	1	Louisville, Ky.	76	44	13	6	3	10	6
Buffalo, N.Y.	100	72	22	2	3	1	5	Memphis, Tenn.	219	137	42	22	4	14	17
Camden, N.J.	38	24	9	2	2	1	1	Mobile, Ala.	107	78	21	3	3	2	11
Elizabeth, N.J.	32	23	6	3	-	-	3	Montgomery, Ala.	61	43	11	5	-	2	1
Erie, Pa.§	42	29	10	2	1	-	-	Nashville, Tenn.	164	116	32	8	6	1	19
Jersey City, N.J.	57	34	11	6	-	6	3								
New York City, N.Y.	1,773	1,082	356	260	48	27	78	W.S. CENTRAL	1,737	1,061	367	195	62	52	108
Newark, N.J.	60	27	20	7	1	5	-	Austin, Tex.	83	55	19	5	2	2	6
Paterson, N.J.	28	16	5	5	-	2	1	Baton Rouge, La.	74	56	13	2	1	2	6
Philadelphia, Pa.	298	192	68	27	7	4	15	Corpus Christi, Tex.	46	24	10	7	3	2	1
Pittsburgh, Pa.§	99	71	15	6	1	6	5	Dallas, Tex.	241	137	43	42	10	9	6
Reading, Pa.	40	28	11	1	-	-	9	El Paso, Tex.	101	69	24	2	3	3	2
Rochester, N.Y.	134	101	17	9	1	6	9	Ft. Worth, Tex.	123	80	26	8	6	3	7
Schenectady, N.Y.	27	22	1	2	1	1	-	Houston, Tex.	431	224	95	76	14	22	46
Scranton, Pa.§	38	32	2	4	-	-	1	Little Rock, Ark.	63	40	15	6	1	1	3
Syracuse, N.Y.	104	78	17	8	1	-	8	New Orleans, La.	174	110	42	15	5	2	-
Trenton, N.J.	27	17	8	1	1	-	4	San Antonio, Tex.	223	136	50	22	11	4	13
Utica, N.Y.	18	13	4	1	-	-	1	Shreveport, La.	62	45	12	2	1	2	5
Yonkers, N.Y.	23	17	3	3	-	-	1	Tulsa, Okla.	116	85	18	8	5	-	13
E.N. CENTRAL	2,447	1,530	469	243	115	90	136	MOUNTAIN	814	540	146	78	19	30	57
Akron, Ohio	89	62	14	8	2	3	-	Albuquerque, N.M.	74	49	11	9	2	2	8
Canton, Ohio	45	30	8	5	1	1	3	Colo. Springs, Colo.	49	28	10	9	1	1	1
Chicago, Ill.	521	226	115	103	58	19	16	Denver, Colo.	120	78	18	13	6	5	12
Cincinnati, Ohio	144	81	38	14	4	7	14	Las Vegas, Nev.	155	90	43	15	2	5	15
Cleveland, Ohio	187	122	38	17	6	4	4	Ogden, Utah	25	22	2	1	-	-	5
Columbus, Ohio	187	132	34	12	4	5	6	Phoenix, Ariz.	194	130	33	18	5	8	2
Dayton, Ohio	155	111	28	11	3	2	3	Pueblo, Colo.	30	27	2	-	-	1	6
Detroit, Mich.	231	134	40	27	9	21	3	Salt Lake City, Utah	35	23	5	4	1	2	3
Evansville, Ind.	38	27	7	2	-	2	2	Tucson, Ariz.	132	93	22	9	2	6	5
Fort Wayne, Ind.	61	50	6	1	1	3	6								
Gary, Ind.	24	17	4	1	1	1	1	PACIFIC	1,952	1,286	326	212	62	61	116
Grand Rapids, Mich.	82	63	14	-	5	-	12	Berkeley, Calif.	26	14	7	4	-	1	2
Indianapolis, Ind.	192	126	31	18	10	7	11	Fresno, Calif.	110	77	17	6	6	4	7
Madison, Wis.	31	21	4	2	2	2	-	Glendale, Calif.	25	20	2	3	-	-	3
Milwaukee, Wis.	148	103	27	9	4	5	21	Honolulu, Hawaii	83	51	20	8	1	3	5
Peoria, Ill.	51	37	9	1	1	3	10	Long Beach, Calif.	90	69	10	5	3	3	8
Rockford, Ill.	47	34	8	4	1	-	11	Los Angeles, Calif.	490	316	71	65	25	9	23
South Bend, Ind.	31	20	11	-	-	-	1	Pasadena, Calif.	36	24	7	2	2	1	3
Toledo, Ohio	108	79	20	4	3	2	8	Portland, Oreg.	92	65	13	7	3	4	2
Youngstown, Ohio	75	55	13	4	-	3	4	Sacramento, Calif.	150	107	24	9	5	5	14
								San Diego, Calif.	195	126	32	26	4	7	13
W.N. CENTRAL	838	610	133	53	19	23	40	San Francisco, Calif.	185	99	36	38	4	7	4
Des Moines, Iowa	29	22	5	-	1	1	1	San Jose, Calif.	179	112	37	20	2	8	11
Duluth, Minn.	27	20	5	2	-	-	2	Santa Cruz, Calif.	38	32	4	2	-	-	6
Kansas City, Kans.	57	40	10	4	3	-	1	Seattle, Wash.	113	76	24	7	-	6	4
Kansas City, Mo.	167	118	31	11	3	4	15	Spokane, Wash.	62	46	10	5	-	1	9
Lincoln, Nebr.	39	30	4	3	-	2	2	Tacoma, Wash.	78	52	12	5	7	2	2
Minneapolis, Minn.	151	105	23	12	7	4	11								
Omaha, Nebr.	82	61	16	2	2	1	3	TOTAL	13,735¶	8,908	2,604	1,355	411	418	818
St. Louis, Mo.	156	114	18	15	2	7	-								
St. Paul, Minn.	71	59	10	2	-	-	3								
Wichita, Kans.	59	41	11	2	1	4	2								

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

U: Unavailable

Tuberculosis — Continued

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Current Trends

Deaths Among Homeless Persons — San Francisco, 1985–1990

In San Francisco (1990 population: 723,959), an estimated 6000–18,000 persons are homeless. To characterize the causes of death among homeless persons in San Francisco during 1985–1990, the Health Care for the Homeless Program, San Francisco Department of Public Health, reviewed records of homeless decedents from the city medical examiner's (ME's) office. This report summarizes the results of that study.

The San Francisco ME's records were reviewed for January 1, 1985, through December 31, 1990. ME cases were classified as "homeless" if, after thorough investigation, no residence could be established for the decedent or if the residence listed was a shelter for homeless persons or one of the single-room occupancy (SRO) hotels used by the San Francisco Department of Social Services to temporarily house homeless persons. Although this methodology was consistent during the study period, the study could not include homeless persons who obtained a residence shortly before their deaths and some persons who were hospitalized at the time of death.

During the 6-year period, 644 deaths were identified among homeless persons (Table 1), of whom 567 (88%) were men. Four hundred thirty-eight (68%) were white; 155 (24%), black; 26 (4%), Hispanic; 13 (2%), American Indian/Alaskan Native; six (1%), Asian/Pacific Islander; and six (1%), undetermined. The average age at death was 41 years (standard deviation = ±12 years).

Deaths Among Homeless Persons — Continued

Location of Death

Deaths occurred most commonly outdoors (e.g., on the street or sidewalk or in parks) (225 [35%]); 155 (24%) occurred in an emergency room or a hospital (approximately half of these persons were probably dead when they were found but were declared dead at the emergency room to which they were transported [San Francisco ME, personal communication, April 1991]). One hundred thirty-five (21%) were found in a building (usually a SRO hotel in which they did not live or an abandoned building); 90 (14%) were found in a SRO hotel in which they lived, and 32 (5%) were found in vehicles in which they lived; for seven (1%) decedents, the location of death was undetermined.

TABLE 1. Number and percentage of deaths among homeless persons, by sex and detailed cause of death — San Francisco, 1985–1990

Sex/Cause of death	1985		1986		1987		1988		1989		1990		Total	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Sex														
Male	95		74		106		114		88		83		560	(87)
Female	15		18		15		11		8		10		77	(12)
Undetermined	2		0		5		0		0		0		7	(1)
Total	112	(100)	92	(100)	126	(100)	125	(100)	96	(100)	93	(100)	644	(100)
Natural														
Alcoholism*	18		4		14		25		20		14		95	
Heart disease	16		13		17		12		7		11		76	
Pneumonia	5		5		7		5		5		1		28	
Chronic obstructive pulmonary disease	2		4		3		2		1		1		13	
Other	7		11		9		7		3		5		42	
Total	48	(43)	37	(40)	50	(40)	51	(41)	36	(38)	32	(34)	254	(39)
Unintentional														
Overdose	19		20		18		30		33		35		155	
Trauma	9		8		6		3		9		6		41	
Hypothermia	3		0		1		0		0		1		5	
Other	0		5		4		5		0		1		15	
Total	31	(28)	33	(36)	29	(23)	38	(30)	42	(44)	43	(46)	216	(34)
Intentional														
Homicide														
Stab wound	4		3		10		6		3		4		30	
Gunshot wound	3		3		2		5		1		6		20	
Other	5		7		10		4		3		2		31	
Total	12	(11)	13	(14)	22	(17)	15	(12)	7	(7)	12	(13)	81	(13)
Suicide														
Drug overdose	2		0		0		1		0		0		3	
Jump off bridge	2		0		3		1		4		0		10	
Gunshot wound	1		1		1		1		2		1		7	
Hanging	1		0		2		5		0		1		9	
Other	3		0		0		2		0		2		7	
Total	9	(8)	1	(1)	6	(5)	10	(8)	6	(6)	4	(4)	36	(6)
Undetermined	12	(11)	8	(9)	19	(15)	11	(9)	5	(5)	2	(2)	57	(9)

*Alcoholism includes only deaths attributable directly to alcoholic cirrhosis and other alcohol-related diseases and not to those with the presence of alcohol in the blood or evidence of alcoholic liver disease that was not the cause of death.

Deaths Among Homeless Persons — Continued

Manner of Death

The manner of death is determined by the ME to be natural, "accidental,"* homicide or suicide (i.e., intentional), or undetermined. The ME determined that 254 (39%) deaths were natural, for an average annual crude death rate of approximately 235–705 (using the estimates of 18,000 and 6000, respectively) per 100,000 homeless persons. Of the other 390 deaths, 216 (34%) resulted from unintentional injuries, 81 (13%) from homicides, 36 (6%) from suicides, and 57 (9%), from undetermined causes (Table 1).

Presence of Alcohol or Drugs

Either drugs or alcohol were detected in 503 (78%) decedents (Table 2). Based on a blood alcohol concentration (BAC) ≥0.1 g/dL as the definition,† one third of decedents were legally intoxicated at the time of death.

Morphine (i.e., the breakdown product of heroin) was the most common illicit drug detected (137 [21%] of all deaths). Cocaine was detected in 93 (14%) and amphetamines in 53 (8%). Evidence of drug use among decedents increased during the 6-year period (Table 2); in 1985, evidence for use of cocaine, amphetamines, and morphine was detected in five (4%), five (4%), and 21 (19%) decedents, respectively, compared with 22 (24%), 13 (14%), and 30 (32%), respectively, in 1990.

Adapted from: San Francisco Epidemiologic Bulletin *1991;7(4), as reported by: DM Wlodarczyk, MD, F Teng, MD, R Prentice, PhD, Health Care for the Homeless Program; F Taylor, MD, Bur of Epidemiology and Disease Control, San Francisco Dept of Public Health; BG Stephens, MD, Chief Medical Examiner, City and County of San Francisco. Office of the Director, Epidemiology Program Office, CDC.*

Editorial Note: The patterns of death among homeless persons in San Francisco are similar to those reported from an ME investigation in Atlanta (*1*). Based on that study, natural causes, homicide, and suicide accounted for 40%, 10%, and 3%, respectively, of deaths among homeless persons in Atlanta during July 1985–June 1986 (compared with 39%, 13%, and 6%, respectively, of deaths in San Francisco). In Atlanta,

*When a death occurs under "accidental" circumstances, the preferred term within the public health community is "unintentional injury."

†Until 1990, a person with BAC ≥0.1 g/dL was considered legally intoxicated in California; in 1990, this was reduced to ≥0.08 g/dL.

TABLE 2. Number and percentage of homeless decedents who had evidence of use of alcohol or drugs, by year — San Francisco, 1985–1990

	1985		1986		1987		1988		1989		1990		Total	
Finding	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Alcohol present*	53	(47)	48	(52)	59	(47)	58	(46)	38	(40)	49	(53)	**305**	**(47)**
BAC† ≥0.1 g/dL	38	(34)	16	(17)	43	(34)	47	(38)	29	(30)	43	(46)	**216**	**(34)**
Any drugs§	30	(27)	28	(30)	33	(26)	46	(37)	43	(45)	43	(46)	**223**	**(35)**
Morphine*	21	(19)	19	(21)	10	(8)	27	(22)	30	(31)	30	(32)	**137**	**(21)**
Cocaine*	5	(4)	7	(8)	22	(17)	18	(14)	19	(20)	22	(24)	**93**	**(14)**
Amphetamine*	5	(4)	6	(7)	8	(6)	11	(9)	10	(10)	13	(14)	**53**	**(8)**
Total deaths	**112**	**(100)**	**92**	**(100)**	**126**	**(100)**	**125**	**(100)**	**96**	**(100)**	**93**	**(100)**	**644**	**(100)**

*The presence of this drug is not mutually exclusive.

†Blood alcohol concentration.

§Excludes alcohol.

Deaths Among Homeless Persons — Continued

however, the proportion of deaths resulting from unintentional injuries (48%) was greater than in San Francisco (34%).

The study in San Francisco also provides an indication of patterns of use of alcohol and illicit substances among homeless persons in that community. In particular, although the proportions of decedents in whom alcohol was detected remained relatively constant during the 6-year period, cocaine, morphine, and amphetamines were detected in increasing proportions of persons. This trend underscores the need for outreach services and other innovative approaches to address substance abuse in homeless populations.

Because of the circumstances of homelessness, public health agencies and other organizations cannot readily quantify or characterize the health status of homeless persons. Although the report from Miami (*2*) describes one approach to characterizing the health status of and risk factors among the homeless, that approach may not be practical as a routine method for many communities. As the study in San Francisco illustrates, however, findings from ME investigations provide other means for assessing the public health status of this population. In California and other states, MEs and coroners are responsible for investigating and certifying all deaths resulting from other than natural causes, as well as apparently natural deaths for which there was no attending physician or an attending physician could not determine the cause (*3,4*). Public health agencies and other organizations providing health services to the homeless may find ME and coroner data useful in guiding the delivery of services to these persons.

References

1. CDC. Deaths among the homeless—Atlanta, Georgia. MMWR 1987;36:297–9.
2. CDC. Characteristics and risk behaviors of homeless black men seeking services from the Community Homeless Assistance Plan—Dade County, Florida, August 1991. MMWR 1991; 40:865–8.
3. CDC. Death investigation—United States, 1987. MMWR 1989;38:1–4.
4. Combs DL, Parrish RG, Ing RT. Death investigation in the United States and Canada, 1990. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1990.

Notices to Readers

Federal Regulatory Action Against Sporicidin Cold Sterilizing Solution

The U.S. Environmental Protection Agency (EPA) has begun testing antimicrobial products registered for use as sterilants and sporicides to determine their effectiveness. The product Sporicidin Cold Sterilizing Solution (SCSS) (EPA Reg. No. 8383-5), registered as a sterilant to reprocess medical instruments that are reused, has failed standard registration efficacy tests. On December 13, 1991, EPA issued a "Stop Sale, Use or Removal Order" against the registrant of Sporicidin, Sporicidin Company of Rockville, Maryland. In addition, on December 13, the Food and Drug Administration (FDA) filed court actions to seize the following five products distributed by Sporicidin Company: SCSS, Sporicidin-HD, Sporicidin Brand Disinfectant Solution, Sporicidin Brand Disinfectant Spray, and Sporicidin Disinfectant Towelettes. The FDA also filed

Notices to Readers — Continued

a cease-and-desist order involving SCSS and Sporicidin-HD, the first step toward a mandatory recall of these two products. The Federal Trade Commission filed a district court complaint for a preliminary injunction to prohibit false and misleading advertisement of SCSS.

CDC is not aware of the occurrence or transmission of disease associated with the use of SCSS. However, use of an ineffective sterilant/disinfectant could be associated with an increased risk for disease transmission, specifically as a result of the use of medical instruments that may retain patient material even after vigorous cleaning.

Standard sterilization and disinfection procedures are recommended for reprocessing of instruments, devices, or other items contaminated with blood or other body fluids from persons infected with bloodborne pathogens, including hepatitis B virus (HBV) and human immunodeficiency virus (HIV). HBV and HIV are not resistant to heat or germicidal chemicals; HIV is sensitive to a wide range of common chemical agents. CDC has published guidelines for sterilization and disinfection of reusable medical devices (*1*). Devices coming into contact with normally sterile areas of the body should be sterilized between uses. CDC recommends that, when possible, devices that come into contact with mucous membranes be sterilized; at a minimum however, such devices should receive high-level disinfection. CDC recommends that liquid chemical germicides registered by the EPA as "sterilant/disinfectants" be used for high-level disinfection. Germicides that do not meet EPA criteria for a liquid chemical sterilant also do not meet the CDC criteria for a high-level disinfectant.

A number of formulations approved by the EPA as sterilant/disinfectants are commercially available in the United States; many of these products are widely available. Information on products that can be used is available from the EPA information hotline, (800) 858-7377.

Reports of cases of infections suspected of being associated with the use of Sporicidin or other sterilant/disinfectants should be reported through state health departments to the Hospital Infections Program, National Center for Infectious Diseases, CDC; telephone (404) 639-1550.

Reported by: Environmental Protection Agency. Food and Drug Administration. Federal Trade Commission. Hospital Infections Program, National Center for Infectious Diseases, CDC.

References

1. Garner JS, Favero MS. Guideline for handwashing and hospital environmental control, 1985. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1985; HHS publication no. 99-1117.

Food and Drug Administration Approval of Use of Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine

The Immunization Practices Advisory Committee (ACIP) and the Committee on Infectious Diseases, American Academy of Pediatrics, recommend that children routinely receive a series of five doses of vaccine against diphtheria, tetanus, and pertussis before 7 years of age (*1,2*). The Food and Drug Administration has approved a diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) prepared by Lederle Laboratories (Pearl River, New York) and distributed as ACEL-

Notices to Readers — Continued

IMUNE™*. **This vaccine is licensed *only* for use as the fourth and fifth doses for children who have previously been vaccinated against diphtheria, tetanus, and pertussis with three doses of whole-cell diphtheria and tetanus toxoids and pertussis vaccine (DTP) and is not licensed for the initial three-dose series in infants and children; whole-cell DTP should continue to be used for these initial doses.** Whole-cell DTP continues to be an acceptable alternative for the fourth and fifth doses. DTaP is not licensed for use in children <15 months of age or after the seventh birthday. The fourth dose should be given at least 6 months after the third dose of whole-cell DTP and is usually administered to children 15–18 months of age (*1,2*). A dose of DTaP may be given as the fifth dose in the series for children aged 4–6 years who have received either all four prior doses as whole-cell vaccine or three doses of whole-cell DTP plus one dose of DTaP; this fifth dose should be given before the child enters kindergarten or elementary school. The fifth dose in the vaccination series is not necessary if the fourth dose was given on or after the fourth birthday (*1,2*).

The following evidence supports the use of ACEL-IMUNE™ after the initial three-dose series of whole-cell DTP vaccine in infants:

1. The immunogenicity of the antigens comprising ACEL-IMUNE™ when used for the fourth and fifth doses is comparable to that of whole-cell DTP vaccine (*3*).
2. Although not evaluated in a prospective study in which clinicians and investigators were blinded with respect to the vaccination status of the study subjects, the effectiveness against clinical pertussis disease of a DTaP vaccine manufactured and used in Japan (which contained a pertussis vaccine component identical to that in ACEL-IMUNE™) has been demonstrated in children ≥2 years of age (*4*).
3. The rates of local reactions, fever, and other common systemic symptoms following receipt of ACEL-IMUNE™ inoculations are lower than those following whole-cell DTP vaccination (*3*).

A statement from ACIP will be published as an *MMWR Recommendations and Reports* (*5*).

Reported by: Center for Biologics Evaluation and Research, Food and Drug Administration. National Center for Prevention Svcs, CDC.

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2. American Academy of Pediatrics. Report of the Committee on Infectious Diseases. Elk Grove Village, Illinois: American Academy of Pediatrics, Committee on Infectious Diseases, 1991.
3. Blumberg DA, Mink CM, Cherry JD, et al. Comparison of an acellular pertussis-component diphtheria-tetanus-pertussis (DTP) vaccine with a whole-cell pertussis-component DTP vaccine in 17- to 24-month-old children, with measurement of 69-kilodalton outer membrane protein antibody. J Pediatr 1990;117:46–51.
4. Mortimer EA, Kimura M, Cherry JD, et al. Protective efficacy of the Takeda acellular pertussis vaccine combined with diphtheria and tetanus toxoids following household exposure of Japanese children. Am J Dis Child 1990;144:899–904.
5. ACIP. Pertussis vaccination: acellular pertussis vaccine for reinforcing and booster use—supplementary Immunization Practices Advisory Committee (ACIP) statement. MMWR (in press).

*Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

Notices to Readers — Continued

Combined Issues of *MMWR*

A December 27 issue of *MMWR* will not be published. The next issue will be Volume 40, Numbers 51 and 52, dated January 3, 1992, and will include the figure and tables on notifiable diseases and deaths for the weeks ending December 21 and December 28, 1991.

The *Morbidity and Mortality Weekly Report* (*MMWR*) Series is prepared by the Centers for Disease Control and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

The data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control, Atlanta, GA 30333; telephone (404) 332-4555.

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